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Supplementary materials for:

Prevention of mitochondrial genomic instability in yeast by the mitochondrial recombinase Mhr1

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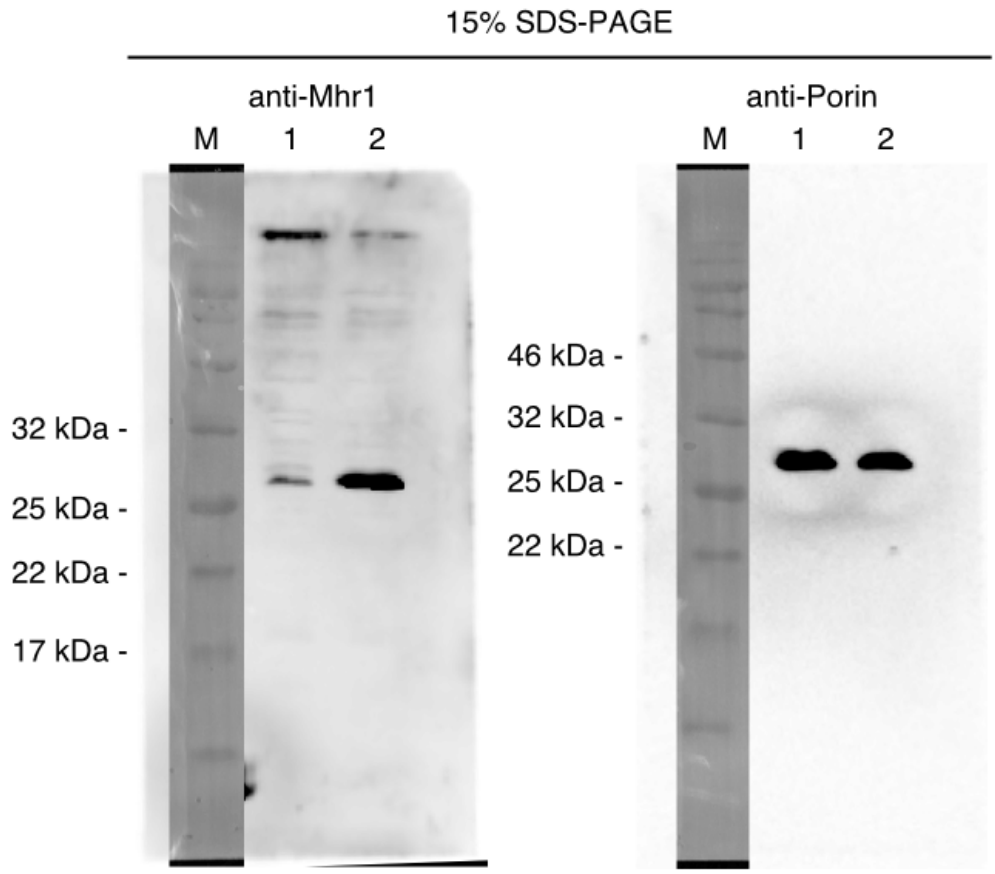
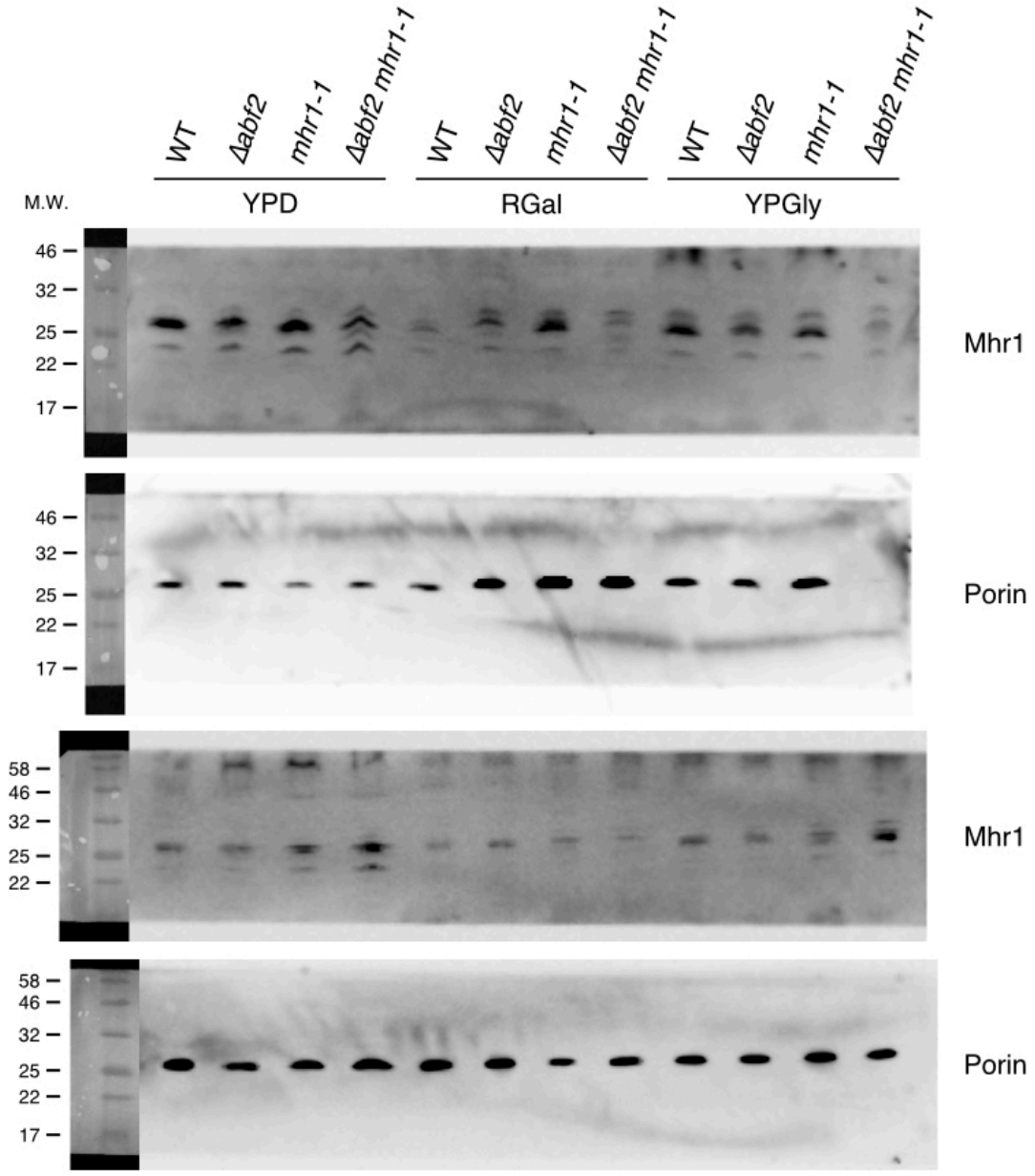


Supplementary Figure 1. Full-length immunoblot images for analysis of Mhr1 overproduction. Cells were cultivated in synthetic defined (SD) Gly-URA media to early log-phase. Cell-free extracts were then prepared from Δ*abf2 mhr1-1* cells containing an empty plasmid (1; pVT100U-Empty) or a plasmid overproducing Mhr1 (2; pVT100U-*MHR1*) using the LiAc / NaOH method[2]. Denatured proteins were subjected to sodium dodecyl sulfate-polyacrylamide gel electrophoresis. Immunoblot analysis was performed using anti-Mhr1 serum to probe Mhr1 and anti-Porin to represent mitochondrial protein amounts as described[1]. 5 µl blue prestained protein standard (NEB #P7706) was used as a molecular weight marker (M).



Supplementary Figure 2. Immunoblot analysis of Mhr1 protein levels in different media. Cell-free extracts were prepared from cells cultivated in YPD, RGal and YPGlycerol media using the LiAc / NaOH method[2]. Results shown are from two independent experiments. Molecular weights (kDa) are indicated on the left.

References:

1. Ling, F. & Shibata, T. Recombination-dependent mtDNA partitioning: in vivo role of Mhr1p to promote pairing of homologous DNA. *EMBO J* **21**, 4730-4740

(2002).

2. Zhang, T., Lei, J., Yang, H., Xu, K., Wang, R. *et al.* (2011). An improved method for whole protein extraction from yeast *Saccharomyces cerevisiae*. *Yeast* 28: 795-798.